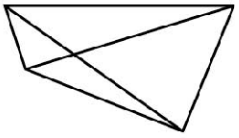
Question	Answer
9.	$BC = GH = 16.6$, so $\overline{BC} \cong \overline{GH}$. $CG = HB = 28$, so $\overline{CG} \cong \overline{HB}$. Since both pairs of opp. sides of $BCGH$ are $\cong$, $BCGH$ is a $\square$ because quad. with opp. sides $\cong \rightarrow \square$.
10.	$UV = WT = 189$, so $\overline{UV} \cong \overline{WT}$. $m\angle V = 85°$, and $m\angle W = 95°$, so $\angle V$ is supp. to $\angle W$. Therefore $\overline{UV} \parallel \overline{WT}$. Because quad. with pair of opp. sides $\parallel$ and $\cong \rightarrow \square$, $TUVW$ is a $\square$.
11.	yes All the sides are $\cong$ to each other. So both pairs of opp. sides are $\cong$. Because quid. with opp. sides $\cong \rightarrow \square$, the quad. is a $\square$.
13.	no Each pair of $\cong$ $\measuredangle$s is a pair of alt. int. $\measuredangle$s. Each pair indicates that the same set of opp. sides of the quad. are $\parallel$. If only 1 set of opp. sides are $\parallel$, you cannot conclude that the quad. is a $\square$.
14.	Possible answer: slope of $\overline{JK}$ = slope of $\overline{LM} = -\frac{7}{2}$; slope of $\overline{KL}$ = slope of $\overline{MJ} = -\frac{1}{5}$; both pairs of opp. sides have the same slope, so $\overline{JK} \parallel \overline{LM}$ and $\overline{KL} \parallel \overline{MJ}$; by def., $JKLM$ is a $\square$.
15.	Possible answer: slope of $\overline{PQ}$ = slope of $\overline{RS} = \frac{5}{3}$; $\overline{PQ}$ and $\overline{RS}$ have the same slope, so $\overline{PQ} \parallel \overline{RS}$; $PQ = RS = \sqrt{34}$; 1 pair of opp. sides are $\parallel$ and $\cong$; because quad. with pair of opp. sides $\parallel$ and $\cong \rightarrow \square$, $PQRS$ is a $\square$.
18.	No; you are only given the measures of the 4 $\measuredangle$s formed by the intersecting diags. of the quad. None of the sets of conditions for a $\square$ are met.

Question	Answer
20.	a = 16; b = 14
21.	a = 16.5; b = 23.2
24.	Possible answer: If the diags. of a quad. are ≅, you cannot necessarily conclude that the quad. is a ▱. 
25.	Possible answer: The red and green △ are isosc. rt. △, so the measure of each acute ∠ of the △ is 45°. Each of the smaller ∡ of the yellow stripe is comp. to 1 of the acute ∡ of the rt. △, so the measure of each of the smaller ∡ of the yellow stripe is 90° − 45° = 45°. Each of the larger ∡ of the yellow stripe is supp. to 1 of the acute ∡ of the rt. △, so the measure of each of the larger ∡ of the yellow stripe is 180° − 45° = 135°. So the yellow stripe is quad. in which both pairs of opp. ∡ are ≅. Therefore the shape of the yellow stripe is a ▱.
34a.	no
34b.	yes; Since $\angle S$ and $\angle R$ are supp., $\overline{PS} \parallel \overline{QR}$. Thus $PQRS$ is a ▱ because quad. with pair of opp. sides ∥ and ≅ → ▱.
34c.	yes; Draw $\overline{PR}$. $\angle QPR \cong \angle SRP$ (Alt. Int. ∡ Thm.), and $\overline{PR} \cong \overline{PR}$ (Reflex. Prop. of ≅). So $\triangle QPR \cong \triangle SRP$ by AAS, and $\overline{PQ} \cong \overline{SR}$ (CPCTC). Since $\overline{PQ} \parallel \overline{SR}$ and $\overline{PQ} \cong \overline{SR}$, $PQRS$ is a ▱ because quad. with pair of opp. sides ∥ and ≅ → ▱.